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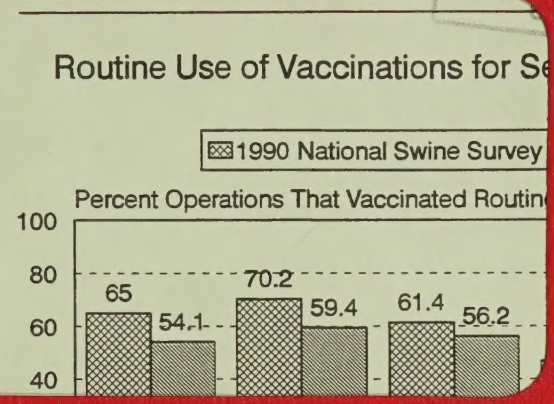


United States Department of Agriculture

Animal and Plant Health Inspection Service

Veterinary Services

Trends in Vaccination Practices on U.S. Swine Operations

National Animal Health Monitoring System

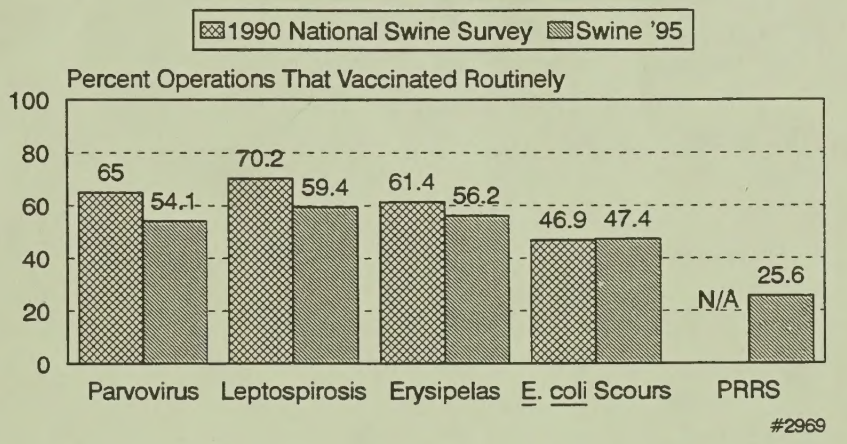
Use of vaccines in U.S. swine herds is declining.

Immunization against disease-causing organisms is one of the tools producers utilize to maintain herd health. Each year, pork producers administer millions of doses of vaccine to pigs of all ages in attempts to prevent entry of disease into the herd and control spread of disease within the herd.

During the summer of 1995, the USDA's National Animal Health Monitoring System (NAHMS) contacted pork producers in 16 states[1] as part of the Swine '95 study. Ninety-one percent of the grow-finish hogs produced in the United States were represented in the study.

Figure 1

Routine Use of Vaccinations for Selected Diseases



Only results of Swine '95 producers with more than one sow were used to evaluate trends since the 1990 NAHMS National Swine Survey. **Swine '95 data indicated an 10.9 percent drop in number of swine operations vaccinating for parvovirus and a 10.8 percent drop in leptospirosis vaccination over the 5-year span** (Figure 1). Vaccinations against parvovirus and leptospirosis are usually administered simultaneously to gilts and sows prior to breeding to immunize the dam and protect embryos and fetuses from infection.

Erysipelas vaccination was used as a preventive practice by 61.4 percent of the operations in 1990 and 56.2 percent in 1995.

Diarrhea caused by the bacteria *Escherichia coli* is a common problem in baby pigs. Producers vaccinate sows or gilts prior to farrowing so nursing pigs will be protected via colostral antibodies. For operations with at least one sow, **47.4 percent of producers vaccinated for *E. coli*, showing little change over the last 5 years.**

Porcine reproductive and respiratory syndrome (PRRS) is a relatively new disease. The virus was isolated initially in the United States in 1991. While no vaccines were available against PRRS until the summer of 1994, Swine '95 results demonstrated that 25.6 percent of U.S. operations currently use the PRRS vaccine. The 1990 study indicated that 39 percent of pork operations had at least one animal carrying antibodies against the PRRS virus. PRRS status for 1995 will be available when Swine '95 blood test results are summarized in 1996.

1 Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Carolina, Ohio, Pennsylvania, South Dakota, Tennessee, and Wisconsin.

Figure 2 shows that operations which had used a veterinarian in the 6 months previous to the Swine '95 were nearly twice as likely to vaccinate. They were also more likely to employ other disease-controlling management practices such as all-in, all-out farrowing or isolation of new breeding sows. According to Dr. Barbara Straw (1994 Allen D. Leman Swine Conference), veterinarians generally consider management to be a more effective means of disease control than vaccination.

Figure 3 shows Swine '95 results that demonstrate increasing use of vaccines as herd size increased. This same pattern was noted in the 1990 National Swine Survey data (Animal Health Insight, USDA:APHIS:VS, Ft. Collins, CO, 1994).

Figure 4 shows use of vaccines by type of operation. Seed stock producers were most likely to use vaccines followed by producers of weaned pigs and farrow-to-finish operations. **Fifty-six percent of seed stock producers or producers of weaned pigs vaccinated for PRRS versus 22.0 percent of producers for all other types of operations.**

NAHMS collaborators on the Swine '95 study included the National Agricultural Statistics Service (USDA); State and Federal Veterinary Medical Officers and Animal Health Technicians; and the National Veterinary Services Laboratories (USDA:APHIS:VS).

Other information from the Swine '95 is available on biosecurity practices. For more information on the Swine '95, contact:

Centers for Epidemiology and Animal Health
USDA:APHIS:VS, Attn. NAHMS
555 South Howes, Suite 200
Fort Collins, Colorado 80521
(970) 490-7800
Internet: nahms_info@aphis.usda.gov

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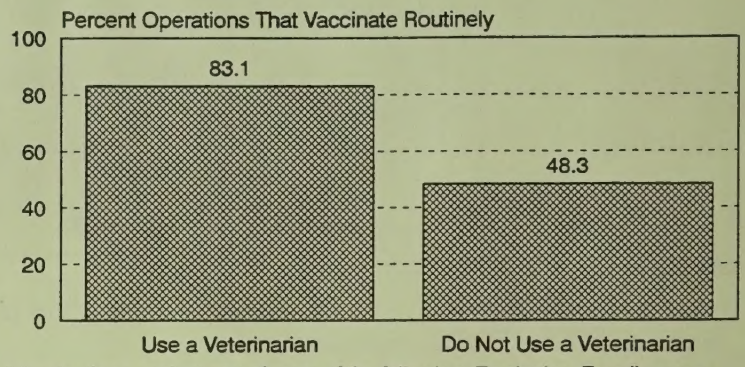
Figure 2

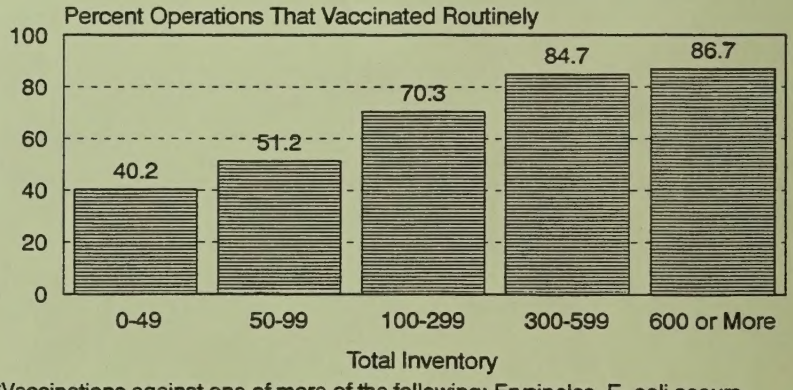
Routine Use of Vaccines* by Operations That Use a Veterinarian



*Vaccinations against one of more of the following: Erysipelas, E. coli scours, Leptospirosis, Parvovirus, or PRRS. #2972

Figure 3

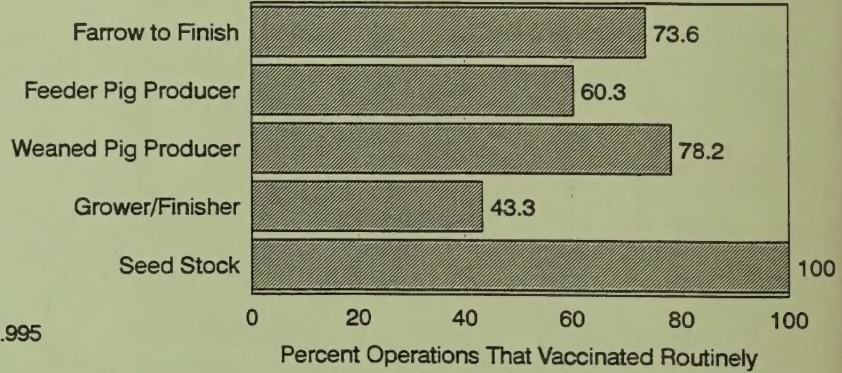
Routine Use of Vaccines* by Herd Size



*Vaccinations against one of more of the following: Erysipelas, E. coli scours, Leptospirosis, Parvovirus, or PRRS. #2970

Figure 4

Routine Use of Vaccines* by Type of Operation



*Vaccinations against one of more of the following: Erysipelas, E. coli scours, Leptospirosis, Parvovirus, or PRRS. #2971

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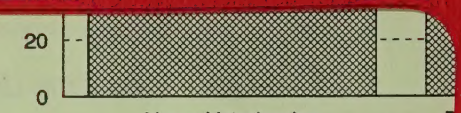

*Vaccinations against one of more of the followin
Leptospirosis, Parvovirus, or PRRS.

Figure 3

Routine Use of Vaccines*

Percent Operations That Vaccinated Rou

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